DOCUMENT RESUME

ED 275 172 FL 016 076

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TITLE Language Tests as Indicators of Academic Achievement.
PUB DATE 84
NOTE 21p.; In: Practice and Problems in Language Testing. Papers from the International Symposium on Language Testing (7th, Colchester, England, 1984); see FL 016 066.
PUB TYPE Reports - Evaluative/Feasibility (142) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Academic Achievement; Admission Criteria; *Concurrent Validity; *English (Second Language); Foreign Countries; Grammar; *Language Tests; *Predictive Validity; *Screening Tests; Test Results; Test Use; Test Validity
IDENTIFIERS *University of Dar es Salaam (Tanzania)

ABSTRACT

This research study explores the concurrent and predictive validity of the English language proficiency screening test used by the University of Dar es Salaam (Tanzania) and the relationship of this measure to academic performance. It is concluded that (1) evidence of the predictive validity of the test supports its use for efficiently distinguishing between students who are proficient and those who need remedial grammar work as a precursor to academic success in their specialty, and that (2) the introduction of the admission requirement of a passing score on the British National School Leaving Certificate Form IV English Test would not adequately assure a proficiency level needed for first year success. The complexity of the linguistic environment in Tanzania and the complexity of predictor and criterion variables in academic success are seen to mandate further, systematic analysis of potential sources of variance in that country over a period of several years. (MSE)

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LANGUAGE TESTS AS INDICATORS OF ACADEMIC ACHIEVEMENT

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FL 016 076

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LANGUAGE TESTS AS INDICATORS OF ACADEMIC ACHIEVEMENT*

Pauline M Rea (University of Dar es Salaam)

1 Introduction

As a result of concern over the falling English standards of students at the University of Dar es Salaam, where English is the medium of instruction, the Communication Skills Unit was established in 1978 with a view to improving the efficiency and effectiveness of student communication in English. Nonetheless, the extent to which English language proficiency is associated with academic performance is unclear and evidence from practical research into the predictive validity of language tests remains inconclusive (Spolsky 1967, Upshur 1967, Chai and Woehlke 1979, Wall 1981).

This paper is the result of work in progress on the concurrent and predictive validity of the University Screening Test (UST) and describes the way in which this measure of grammatical competence is related to academic performance.

2 Background

A number of studies investigating the relationship between language proficiency and academic achievement at university level have been conducted. There are several motivations for studies of this kind. Firstly, with large numbers of overseas students seeking admission at tertiary level, an indicator of language proficiency is frequently used as one of the criteria for placement. Secondly, considerable effort and resources have been spent developing language testing instruments used for purposes of university placement, eg TOEFL, EPTB, and more recently the ELTS (1). Thirdly, in the case of countries where there is a switch of medium of instruction from an indigenous language at primary and/or secondary level to English at secondary and/or tertiary level, there is increasing concern over declining standards of English language proficiency. Since it is assumed that language is an important factor in academic achievement, the language requirements for successful university studies and the provision of pre- and in-service language training for those who do not match up to these requirements are frequent topics of debate. It is this third reason which has been the primary motivation behind the present investigation.

* Financial assistance from the British Overseas Development Administration (ODA) to enable me to participate in the 7th International Language Testing Symposium of the IUS is gratefully acknowledged.

The first set of studies for review are those undertaken within a native English speaking context, and Chai and Woehlke (1979) provide a useful summary of results from a number of predictive validation studies in the United States. In their survey, the main language proficiency predictors were the TOEFL and the MTELP (2) but there was some variability in the criteria used for academic success: mid-year GPA, end of first year GPA, final year GPA. In all but one of the studies, predictive validity was estimated by a correlation between the test scores and the criterion performance. The levels of association between language proficiency and university achievement reported in the Chai and Woehlke survey show considerable variation both within and between the investigations cited. A total lack of dependence was observed between some of the language predictors and the criterion measures, in the work of, for example, Chase and Stallings (1966), Burguis and Naguil (1970), Abadzi (1975) and Hamlin (1976). On the other hand, Jones et al (1964) and Moran and Erion (1978) both report associations at the 5% level of significance, whilst Allen (1965), Hwang and Dizney (1970), and Gue and Holdaway (1973) report results with less than 1% probability that the observed association occurred by chance. In a more recent study, Homburg (1979) found no significant correlation between the TOEFL and GPA; neither did Wall (1981) who investigated the predictive validity of the Michigan Composition sub-test.

Research conducted in the United States suggests there is no systematic association between language proficiency and measures of academic achievement. In a few cases, there is a total lack of dependence between the two variables. In other studies positive correlations have been shown to exist but these are generally low. Chai and Woehlke (1979) further state that the maximum proportion of variance of the criteria predicted by the language test scores in their survey was in no case more than 50%, and in most cases it was less than 25%. Interpreting this as evidence of a weak association between predictor and criterion variables, they then questioned the commonly held assumption that academic success is dependent on language proficiency.

In the majority of studies carried out in Britain, estimates of predictive validity have not always been expressed in correlational terms but have made use of banding systems, or binary divisions such as 'pass' and 'fail'. Using both methods, Davies (1967) analysed the predictive and concurrent validity of English language reception tests on samples of overseas students, in the UK and overseas, and on a control group of native English speaking students, working at different academic levels. A range of validity coefficients were reported (+ .8 to - .2), some of which reached the 5% level of significance. Further, no support was found for the claim that language proficiency levels vary from one type of academic course to another: Davies identified a single cut off point which adequately accounted for academic achievement with nearly 80% success across academic levels. However, such a relationship was not demonstrated by the work of Sen (1970). In her study of 2300 overseas students studying in

Britain, in which a 'pass'/'fail' distinction on final GPA was matched with English language proficiency levels, she concluded that language ability was not predictive of academic success. On the other hand, Heaton and Pugh (1974) reported a significant difference between the mean English test scores of students who failed or passed their university courses. ($p < .005$ for undergraduates; $p < .01$ for postgraduates). Davies (1977) surveying 2000 students in Scotland obtained a 72% corroboration between EPTB scores and tutors' assessments of the 'adequacy' or 'inadequacy' of their students' language proficiency. Moller (1977) revealed a similar pattern of agreement (86%) between test scores and tutors' judgements, thus providing further evidence for the predictive validity of the EPTB in identifying students with language problems. James (1980) claimed predictive validity for the language tests at the University of Manchester in diagnosing students with linguistic deficiencies, reporting that two out of three students identified by their tests did in fact experience language difficulties. He reported that his study replicated exactly the findings of an earlier investigation by Jordan (3). Finally, Ingram (1973) in her work on the validation of ELBA (4) observed a significant relationship between language test scores and success in academic work, noting that the higher the score of ELBA the greater the chance of passing academic examinations.

In the British studies, there are no claims for a strong correlation between language proficiency and academic achievement. Although there is a significant relationship reported by Heaton and Pugh (1974), we may note that the highest amount of shared variance between the predictor and the criterion is just over 40%. On the other hand, these studies strongly suggest that students with poor language ability can be adequately screened by means of language tests and there is evidence that those thus identified stand a less than equal chance of succeeding in their studies.

The second set of studies to be reviewed here are those conducted in countries where English has the status of a second, third, or even fourth language and is used as the medium of instruction at tertiary level. At the University of Zambia, Heron (1970) examined the extent to which language training at university level contributed to the success of students as measured by mid-first year tests. He administered a series of English language tests, alongside reasoning tests, and controlled for different subject combinations. In the Humanities and Social Sciences, a systematic relationship between English performance and success in studies was observed in History and Political Science ($p < .01$), whereas no association with reasoning test results were identified. In the Natural Sciences, failure rates on a course in the 'Scientific Approach' were found to be dependent on reasoning ($p < .01$) and to a lesser extent on English proficiency ($p < .05$). A general tendency for Chemistry and Physics to be related to reasoning ability was observed (although the results were not significant), but no association with results on the English tests emerged. It was posited that

the overall lack of dependence between reasoning ability and mid-first year results, especially in the Humanities and Social Sciences, may have been attributable to the way in which staff were influenced by students' general ability to express their ideas in English. It was further suggested that the lack of dependence on English as far as the Science grades were concerned may have been a reflection of the type of examination used.

At the University of Haille Sellassie I in Ethiopia, King and King (1971) investigated nineteen variables in relation to academic performance and found that the best predictor of GPA, based on first semester results, was English language achievement as measured by the ESLCE (5) (r = .42). A very thorough correlational study by Douglas (1977) in the Sudan investigated the contributors to academic success at the University of Khartoum. The School Leaving Certificate results for English language were found to be important to university work, predicting academic achievement as well as anything else on the School Leaving Certificate Examination. It was further observed that English language proficiency was a major problem for first year students and that those demonstrating the highest level of English language competence were also those who were most successful in university examinations.

Five studies relevant to the concerns of this paper have been carried out in Tanzania. The first by Klingelhoffer (1966) investigated the relationship between High School Leaving Certificate results and composite first year grades in various subjects at the University of Dar es Salaam. The research failed to identify any systematic association between the predictor variables and the criterion measure of academic success. It was therefore suggested that the prediction of university achievement could be improved by including tests of English language proficiency, since success in studies was seen to be more likely a function of English language competence than any other single factor. However, in a study by Whitely (1969) correlations between first year education students' performance on a series of listening and comprehension tests and end of first year cumulative GPA scores were computed. No dependence was found between the language proficiency predictors and academic achievement. Since a report of this study is not available, it is not possible to explain the causes of this total lack of association.

Anderson's work (1975), also at the University of Dar es Salaam, was conducted as a complementary study to Whitely's (6), and examined students' productive language skills in written English in relation to educational performance, as measured by first year GPA. In contrast with all the studies previously mentioned, students' language competence was not measured through the administration of tests but through an analysis of language samples produced in naturalistic settings. Measures of sentence and clause length and complexity were computed, and the use of non-finite and passive verb forms were analysed. Some evidence for an association between these measures of English competence

and educational performance was obtained, although in general the correlations were not highly significant. It was observed that the measures of simplicity correlated most positively thus implying that students who wrote more simply (7) tended to be more academically successful in their first year at university.

In a more recent study in Tanzanian Secondary Schools, Mvungi (1982) examined the extent to which students who performed well in the medium of instruction (ie English) also performed well in their school subjects. Correlating English performance with History, Literature and Maths, significant results were reported between English language test scores and performance in the school subjects ($p < .01$). It is interesting to note that the level of significance is constant across the three school subjects. Computing the proportion of variance as predicted by English language performance we find that this falls in the region of 40%.

Data in a study by North (1983) provides evidence of a more consistent relationship between language abilities and academic achievement at the University of Dar es Salaam. Mid-year coursework marks for first year students in the Faculty of Medicine were compared with three measures of language ability and grades obtained on the Form VI School Leaving Certificate (on which university admissions are primarily based). The results indicated that all three language measures were strongly associated with coursework assessment scores, at the 1% level of significance and, in every case, that they correlated more highly with academic achievement than the Form VI qualifications. North's data therefore show language ability to be a fairly accurate and important predictor of academic success in first year studies. Additionally, the language tests in this investigation successfully diagnosed students with language problems with a satisfactory degree of accuracy. In a comparison of students scoring above and below half marks on the English language tests, only 3% of the high scorers had a failing average in coursework, as compared with 32% for the low scorers.

Taking an overview of the studies described in this paper, their results are open to various interpretations and, thus, the extent to which academic success is dependent on English language proficiency remains unclear. Several factors contribute to these inconclusive results. These include, for example, the considerable variation in the types of language tests used, and their proximity to the tests through which measures of academic achievement have been obtained. The characteristics of the samples are rarely held constant (cf Gue and Holdaway 1973), differing in size, nationality, subject specific orientation, level (undergraduate or postgraduate) and so on. The countries and the linguistic environments in which these investigations have been conducted also differ, and it has been further suggested (Kaplan and Jones 1964) that dual standards for the assessment of student performance are in operation, one for native English speaking students, another set for non-native speakers. The actual criterion measures of academic success

against which language proficiency is correlated, and the adequacy of these criterion measures, are also subject to variation. Further, there is diversity in both the methods used (correlational studies, banding or binary systems) in establishing the degree of association between predictor and criterion variables, and in the interpretation of results thus obtained.

It is not surprising, therefore, to find such varying degrees of association between language proficiency and academic performance because of the different circumstances and the variability in comprehensiveness of these studies. Additionally, as Douglas (1977) points out, contributors to academic success consist of a complex interaction of factors which include, importantly, general intellectual ability and learning ability. Language ability is therefore only one of a variety of factors.

Although the studies discussed above are not without theoretical interest, they have been primarily initiated for their potential usefulness in providing solutions to practical issues: their accuracy in selecting students for higher studies and/or screening students in need of additional language tuition. One of the main drawbacks of correlational studies is that they reflect the relative standing of students on different tests and are not directly influenced by differences in levels of attainment.

3 The Problem

At the University of Dar es Salaam, and elsewhere (8), there is very frequent mention of falling English standards. Interim measures to overcome the apparent problems have been implemented, and others are being sought (9), pending the strengthening of English language teaching in the secondary school sector.

The work reported in this paper has two related aims. Firstly, it examines the predictive validity of two language proficiency measures to determine academic success at first year university level. Secondly, it considers the accuracy of test scores on a test of grammatical competence to identify students likely to experience problems in their specialist courses.

4 Procedures

The predictors of academic success include two variables related to performance on the National School Leaving Certificate: Form IV English (now being considered as a compulsory requirement for university entrance) and Form VI results in students' subject areas which form the main basis for admission into the university. In addition to the O level English result, UST results are included, (as a measure of students' ability to apply their knowledge of English grammar in general areas of academic discourse).

Academic achievement is measured by the cumulative end of first year GPA, from which the results of all language measures have been excluded. The subjects considered here are first year students enrolled in four faculties (Commerce and Management (CM), Law (LL), Medicine (MD), and Science (SC)) in the 1982/83 academic session.

5 Results

A comparison of the three variables common to all university faculties is shown in Table 1 below.

Table 1

Comparison of Mean Scores and Standard Deviations

on Predictor Variables Common to all Faculties

VARIABLES		FACULTIES CM	LL	MD	SC
Entry Points	N	104	46	47	106
	$\bar{X}$	6.4	8.7	7.9	5.1
	σ	2.2	2.1	3.1	1.8
English O Level	N	120	57	55	102
	$\bar{X}$	2.6	3	3.3	2.5
	σ	.94	.91	.98	1.02
UST	N	104	54	53	122
	$\bar{X}$	63	68	71.6	64
	σ	16.3	17.6	16.5	13.7

The results indicate that the mean entry points for Law and Medicine tend to be the highest, and that there is a significant difference between the means of these two faculties with those of Science and Commerce and Management ($p < .001$). A similar pattern emerges with the O level English results, with higher mean scores for Law and Medicine. Again, a significant difference is observed between these faculties and those of Science and Commerce and Management ($p < .001$). In contrast, apart from a significant difference between Medicine and Science ($p < .01$), there is no evidence of significant variation in the mean UST scores for the samples analysed. This result is rather surprising because of the variation in failure rates obtained across faculties on the UST - 39% for Commerce and Management,

27% for Science, 17% for law, 11% for Medicine. This disparity in levels of grammatical competence is also confirmed by staff who teach students across university faculties (10). We may note, however, that the use of mean scores may obscure variance. Overall, these results suggest that the greatest difference in the students across the four faculties lies in their university entry points, although it should be noted that these points are not directly comparable as, for each faculty, they reflect a different combination of school subjects passed at Form VI level.

Table 2 below presents the correlation matrix for the predictor variables and GPA.

Table 2

Correlation Matrix for the Whole Sample (n = 364)

	English O Level	Entry Points	UST	GPA
English O Level	-	.19*	.07	.17*
Entry Points	.19*	-	.16*	.36**
UST	.07	.16*	-	.41**
GPA	.17*	.36**	.41**	-

* $p < .01$

** $p < .001$

These results show no relationship whatsoever between the UST and the O level English language result, whereas a low correlation is evident between the UST and entry points ($p < .01$). There is some indication that performance at O level in English is related to first year final examination results. The most statistically significant relationships exist between students' entry points and their UST scores with GPA ($p < .001$). However, this pattern is not consistently reflected in the breakdown of results per faculty presented next.

Tables 3 - 6 present the correlation matrices for the main predictor variables for the four faculties studied.

Table 3

Correlation Matrix for Medicine (N = 47)

	English 0 Level	Entry Points	UST	GPA
English 0 Level	-	.12	.38**(11)	.26
Entry Points	.12	-	-.05	.47**
UST	.38**	-.05	-	.54***
GPA	.26	.47**	.54***	-

Table 4

Correlation Matrix for Law (N = 41)

	English 0 Level	Entry Points	UST	GPA
English 0 Level	-	.24	.34*	.01
Entry Points	.24	-	.34*	.26
UST	.34*	.34*	-	.53***
GPA	.01	.26	.53***	-

Table 5

Correlation Matrix for Commerce and Management (N = 90)

	English 0 Level	Entry Points	UST	GPA
English 0 Level	-	.14	-.02	.29**
Entry Points	.14	-	.02	.23*
UST	-.02	.02	-	.47***
GPA	.29**	.23**	.47***	-

Table 6

Correlation Matrix for Science (N = 100)

	English O Level	Entry Points	UST	GPA
English O Level	-	-.07	.14	-.03
Entry Points	-.07	-	.07	.13
UST	.14	.07	-	.22*
GPA	-.03	.13	.22*	-

English language proficiency as demonstrated by the Form IV qualification appears unrelated to academic success, with the exception of the faculty of Commerce and Management ($p < .01$). No consistent relationship is observed between this last predictor and UST scores, although the association between the two are significant at $p < .05$ for students in Law and at $p < .01$ for students in Medicine. We may note from Table 1 that the mean O level results and UST scores are the highest in both Medicine and Law. On the other hand, it is perhaps not surprising for there to be a lack of systematic association between English O level and UST results not only because of the time lapse between the administrations of the two tests but also because a large proportion of university entrants do not proceed directly from school to university, many of whom will have been operating through the medium of Kiswahili (rather than English) in the intervening period.

With entry points and GPA, the results for the faculty samples do not indicate a consistent pattern. Varying degrees of significance ($p < .05$, $p < .001$) are indicated and, in the case of Science and Law, it appears that entry points are totally unrelated to first year success.

In every case, however, the UST proves to be the most consistent and highly significant predictor of academic success ($p < .001$ for Medicine, Law and Commerce and Management; $p < .05$ for Science). From the results presented in Tables 3 - 6 above, it appears that grammatical competence, as demonstrated by scores on the UST, is the best predictor of academic success at first year university level.

The next set of findings address the issue of the accuracy with which the UST identifies students who are likely to

underachieve in their university studies. The relationship between the UST scores and final first year results are presented in terms of a banding system. The underlying assumption of this analysis is that the lower the score on the UST, the greater the risk a student runs of failing in his area of subject specialisation. The results which follow in Table 7 are suggestive that this is the case.

Table 7

Comparison of UST Scores (MD, CM, SC) with First Year GPA Results (N = 268)

UST	GPA RESULTS	N
69% +	74% pass 26% fail	136
55 - 68%	46% pass 54% fail*	70
45 - 54%	38% pass 62% fail*	37
Below 44%	44% pass 56% fail*	25

The recommended cut off point for the UST, at present the same across faculties, is 54%. From Table 7, it can be seen that the level at which the proportions (12) start to reverse are at one banding level above the present cutting score. However, the trend is quite clear. The results provide evidence in support of the view that students with an inadequate grasp of English grammar are likely to be 'at risk' in their academic subjects, since the lower the score on the UST, the greater the likelihood of students supplementing (one or two subjects), repeating their first year, or being discontinued.

Additional evidence for the predictive validity of the UST is provided by the faculty breakdown given in Table 8. From these results, variation in the extent of failure rates at each level is to be noted. The appropriacy of a standard cutting score for all faculties is also an area for closer investigation. Nonetheless, the pattern emerging is substantially the same as for the whole sample.

Table 8

Comparison of UST Scores with First Year GPA Results (MD, CM, SC)

(N = 268)

UST	MD		N	CM	N	SC	N
69%+	71% 28.5%	pass fail	49	89% pass 11% fail	45	62% pass 38% fail	42
55 - 68%	36% 64%	pass fail*	22	71% pass 29% fail	21	33% pass 67% fail*	27
45 - 54%	33% 66%	pass fail*	3	43% pass 57% fail*	21	31% pass 69% fail*	13
Below 44%	100%	pass	1	57% pass 43% fail	14	20% pass 80% fail*	10
			75		101		92

Since the Communication Skills Unit also administers discipline-related tests designed to measure the academic study skills of notetaking from written and spoken inputs, reading comprehension, and writing, it would be informative to compare the results of these discourse processing tests with those of the UST. Of interest here would be the level of performance in academic study skills below which students stand a less than equal chance of succeeding at first year university level. With this information, the association between competences in grammar and academic communication skills could then be examined, thus providing useful input for those involved in the implementation and evaluation of remedial and developmental language training programmes.

6 Discussion

Two types of analysis have been presented here. In interpreting the results of the correlational analysis, it should be borne in mind that one would not necessarily expect a strong correlation between language performance and academic achievement to emerge. This is confirmed by the level of the association reported for the studies viewed at the beginning of this paper and by the present findings. Davies (1982) observes "it is well known that the correlation . . . with an academic criterion at the end of a year's course of study is typically about three". It could be, however, that the level of coefficient will vary according to the linguistic environment in which students undertake their academic course. The findings at the University of Hong Kong Language Centre (Low and Lee 1982, Fok 1982), and in Dar es Salaam (North 1983), together with those presented in this paper are suggestive, but by no means conclusive, that there is a greater dependence between language proficiency and academic success in ESL rather than in native English speaking contexts. Further, it may be noted that the language measures in the studies just cited have been specifically developed as tests of English proficiency for academic purposes, following a less traditional and more communicative approach to testing. In all of these tests, the communicative demands more closely approximate those required by students' academic courses, thus it may be the case that an English test will predict the results of another test in English if it is similar in form (Anderson 1975). This aspect of test validity has been raised elsewhere (Chai and Woehkle 1979, Wall 1981).

The issue, I suggest, is not really one of dependence, in correlational terms, of academic success on language proficiency, but rather one of the actual predictive potential of English tests to accurately screen out those students 'at risk' (without further language training) when following courses in their area of subject specialisation. The use of expectancy tables provides a more immediate and useful illustration of the extent of the relationship between success in studies and language proficiency, and of the power of the latter to predict criterion performance. According to the data presented, students who score below a certain level on the UST stand a greater chance of failing in their academic subjects than those who score above this level. This supports the hypothesis underlying the introduction of the UST at the University of Dar es Salaam, and is evidence of its predictive power.

It was observed earlier that entry points required for university admission vary from faculty to faculty, but a comparison of mean scores on the UST across faculties revealed little variation. Further analyses of all university faculties is required for these variables, and the possible existence of varying language proficiency threshold levels for students in different faculties, or clusters of faculties, should be examined.

Subsequent investigations will necessarily raise several interesting issues. These include the relationship between alternative test types (skill-based, grammar-based) and test formats (multiple choice, cloze, guided production tasks) and their independent or cumulative contributions to academic success. The influence of test content on the performance of students in different subject areas is a very relevant concern (13), especially with the increase in number of ESP testing modules (14).

7 Conclusion

This investigation has been exploratory, arising primarily from the need to validate the UST at the University of Dar es Salaam. Subsequently, in response to a more recent request for guidance on the status of proven proficiency in English as a prerequisite for university admissions, it has addressed the issue of contributors to academic success. In respect of the former objective, this paper has considered evidence for the predictive validity of the UST and it appears that this measure is efficient in distinguishing between two categories of students. Concurrent validity data, reported elsewhere (Rea 1983), strongly suggests that students who fall below the specified threshold level on the UST are in need of remedial grammar work. The results reported here indicate that these same students are also very likely to encounter difficulties in their specialist subjects.

The second objective is considerably more problematic. I have attempted to show the influence of proficiency in the medium of instruction on academic performance. There is an indication that the introduction of a prerequisite pass at English O level will not significantly alter the status quo. A viable alternative to this might be the administration of the UST, or one of the other language tests being analysed, in their present, or modified, forms.

An important factor emerging from studies in this area is the variation in results within the same institution, from institution to institution, and from country to country. It is clear that any policy decisions on compulsory language requirements for university entrance will depend on the findings of a comprehensive study. By the very nature of the complexity of the multilingual environment in Tanzania, and the complex of factors inherent within the predictor and criterion variables of academic success, future analyses should systematically address potential sources of variance. Further, the effects of language training provided, in the intervening period between initial language testing and the point at which data on the criterion variable of academic achievement are obtained, should be taken into consideration. Because of the dynamic nature of the linguistic situation in Tanzania, data over several years should be examined.

Finally, test scores are not perfect measures and they should not, therefore, be treated as such. They exist to provide guidance and, following the advice in the TOEFL Manual 1981, each institution is well advised to match the suitability of English test scores with its own specific purposes for testing. Because of the waste of national resources in the case of students who fail to complete their university education (North 1983) and the time and resources spent in developing and maintaining language training programmes, detailed investigations in countries in similar circumstances to Tanzania would not seem to be misguided. At one and the same time, they will provide insights into theoretical issues of current concern to language testers and they will also signal the way ahead for useful developments in the formulation of language policies and the development of language training programmes from which the majority may derive maximum benefit.

Notes

1 The Test of English as a Foreign Language; the English Proficiency Battery, also known as the Davies Test; the ELTS has been devised as a replacement for the EPTB and is administered by the British Council in association with the Cambridge Examinations Syndicate.

2 The Michigan Test of English Language Proficiency.

3 Jordan, B 1976. Cited in James, K 1980.

4 The English Language Test Battery developed in the Department of Linguistics at the University of Ediburgh.

5 The Ethiopian School Leaving Certificate Examination.

6 The only references to Whitely's research are available in Anderson 1975.

7 Students who used shorted T units and fewer subordinate and embedded clauses.

8 At the University of Makerere, Uganda; the English Language Unit at the University of Zimbabwe; the call for concerted efforts to improve the teaching of English at secondary school level in Botswana, to mention a few.

9 For instance, the introduction of a pass at English O level as a prerequisite for university admission.

10 That is, CSU staff who teach the Intensive Grammar Programme in all the university faculties.

11 The significance levels for all tables are as follows: * $p < .05$; ** $p < .01$; *** $p < .001$.

12 Pass comprises A, B, and C grades on GPA; Fail covers D and E grades and also students who supplement one or two subjects, repeat the year, or are discontinued from university studies.

13 See J C Anderson and A H Urquhart in this volume; also their paper "The Effect of Student Background Discipline on Comprehension: a pilot study", in Developments in Language Testing, edited by D Porter and A Hughes, London: Academic Press 1983.

14 Particularly in connection with the ELTS which is administered worldwide.

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